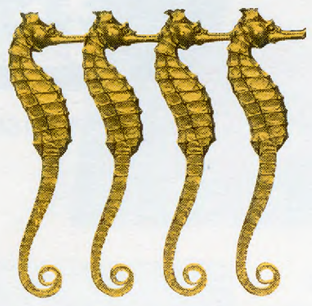
The California Academy of Sciences
In Golden Gate Park

The ACADEMY

DEDICATED TO SCIENTIFIC RESEARCH AND EDUCATION, INSPIRING RESPECT FOR THE NATURAL WORLD

October 1993

NEWSLETTER



CAST A VOTE FOR THE AQUARIUM

Steinhart Aquarium is celebrating its 70th anniversary this year, which makes it the oldest continuously operated aquarium in the United States. Since 1923, millions of visitors have learned about the beauty and variety of aquatic life by coming face-to-face with the many living treasures of the aquarium.

In November, San Francisco voters have an opportunity to pass a $98 million bond measure that will provide for the reconstruction, construction or acquisition of nine San Francisco cultural facilities. The Academy will receive $22.5 million for the renovation of Steinhart Aquarium. This work includes seismic strengthening, disabled access, asbestos management, and correction of deficiencies and code violations to meet health and safety requirements.

Museums and cultural centers enhance our quality of life, provide unparalleled educational opportunities, and attract visitors and educators from around the country. The success of this bond measure will allow the Steinhart Aquarium to upgrade its displays and continue to be an educational resource for generations to come.

The other institutions included in the bond represent a cross-section of San Francisco's diverse culture: The Exploratorium, Mission Cultural Center, Center for African & African American Arts and Culture, Bayview Opera House, South of Market Cultural Center, Art Commission Gallery, Lesbian/Gay Cultural Center and Renovation of the Historic Main Library for the Asian Art Museum.

BEHIND THE SCENES AT THE ACADEMY

MEMBERS OPEN HOUSE

WEDNESDAY, OCTOBER 13 / THURSDAY, OCTOBER 14; 6 TO 9 PM

Join us in a celebration of the Academy's 140th birthday! At the most popular member event of the year, you have the opportunity to go behind the scenes and tour the fascinating world of Academy research.

Founded in 1853, the Academy was created by a group of naturalists who wished to survey the vast resources of California and the West. Since then the Academy has grown to be one of the largest museums in the world with research collections that are an international resource reflecting the diversity of life on Earth.

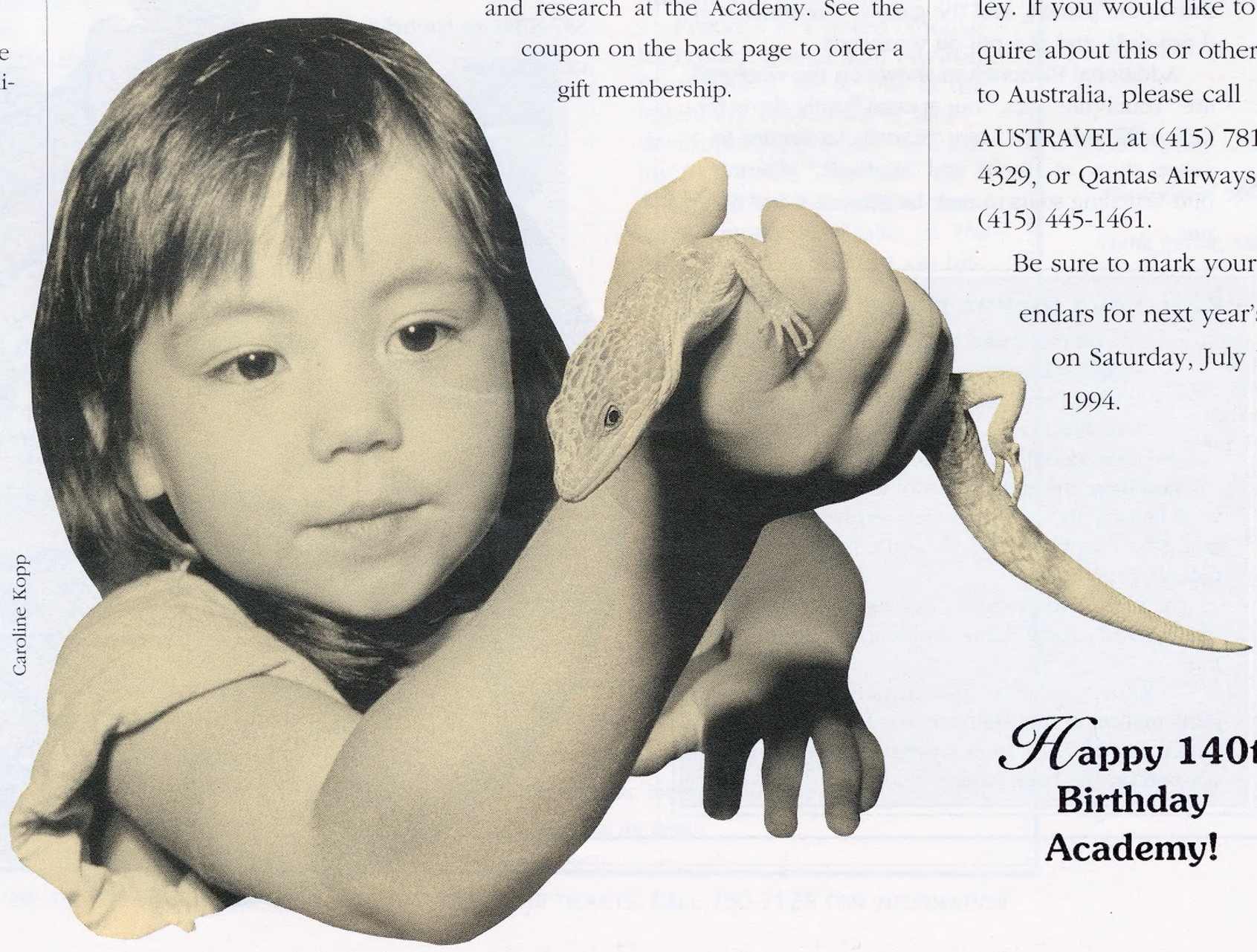
Caroline Kopp

You'll be able to view these world-famous collections in the Academy's eight research departments. Meet the scientists who study such fascinating subjects as sharks, butterflies, gems, dinosaurs, rainforests, bird calls, and human cultures.

Additionally, you can get a fish-eye view of the Steinhart's fish tanks, and see the complex water system that provides oxygen to all the fish. The Planetarium will have a show-and-tell program on how sky and laser shows are created using an automated console. And, of course, all exhibits will be open for you to enjoy.

The Academy Store will be open so you can take advantage of your 10 percent discount. A light supper will be served in the Cafe from 6 to 8 pm.

Open House is an exclusive benefit for members only. This is a perfect time to invite your friends to become members and attend this event with you. Consider a gift membership, which offers year-round benefits and helps support education and research at the Academy. See the coupon on the back page to order a gift membership.



Caroline Kopp

'GATOR-SIZE Thanks!

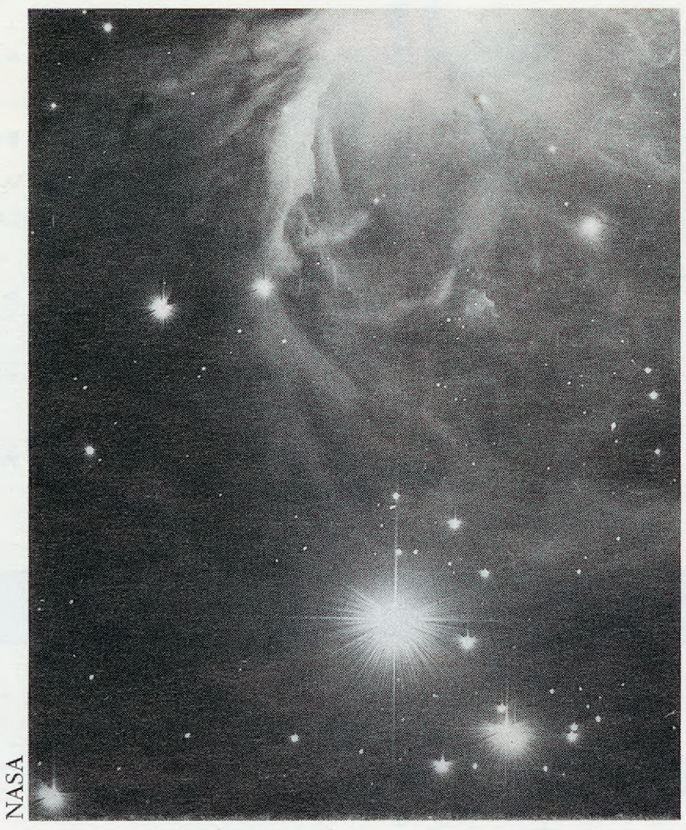
Many 'gator thanks to the 1,100 revellers who attended the July 10th 'Gator Gala, our second annual summertime gala. The event raised over $15,000 for the Academy's environmental education programs for children.

The Academy also would like to give a round of 'gator applause to AUSTRAVEL and Qantas Airways for their very generous donation of a 12-day trip for two to Australia, encompassing the Mossman River Gorge, Lizard Island, Sydney and the Hunter Valley. If you would like to inquire about this or other trips to Australia, please call AUSTRAVEL at (415) 781-4329, or Qantas Airways at (415) 445-1461.

Be sure to mark your calendars for next year's gala on Saturday, July 16, 1994.

Happy 140th Birthday Academy!

MORRISON PLANETARIUM



NASA

DIAMONDS IN SPACE

EXPLORING THE UNIVERSE SERIES

Diamonds are leaving their "fingerprints" on the universe. Discover how Dr. Scott Sandford, of NASA's Ames Research Center, and his colleagues stumbled upon the discovery that microscopically small diamonds are common in space, when he presents **"Fingerprinting the Universe: Discovering Diamonds in Space"** on **Oct. 19th**. Learn how infrared spectroscopy has aided astronomers in "fingerprinting" the universe (identify what's out there).

Dr. Sandford also will talk about a variety of other interesting topics, such as: 1.) Why it's OK to compare apples and oranges; 2.) How we know Jupiter's moon Io smells like rotten eggs; 3.) Where to look if you want to see the galaxy's largest daiquiri; 4.) How the galaxy may be like an automobile engine; and, 5.) Why we know there are no germs in space.

Program begins at 7:30 pm in the Planetarium. Tickets are $2 each and are available in advance or at the door on a first-come, first-serve basis. For more information, call the Universe Line at 750-7141.

"GALILEO'S UNIVERSE"

FEATURED SKY SHOW

Italian scientist, Galileo Galilei, revolutionized astronomy in the early 17th century with the use of the telescope. He opened the way to a new understanding of the universe. Follow in his path and share in the rediscovery of the secrets of our moon, the planets, and the galaxy. The show is at 2 pm daily and at 4 pm on weekends.

Additional Planetarium shows on the weekend are "Touch the Stars," our special family show for kids of all ages, at 11 am; "Startalk," a sunrise to sunset show, at 12 pm; and "Starbirds," where bird-watching soars to new heights, at 1 and 3 pm.

POOL YOUR INCOME FOR THE ACADEMY

You can make a gift to the Academy and still receive investment income. It's called the Academy Pooled Income Fund. This fund is set up so that you receive a lifetime income at competitive yields.

You have the satisfaction of knowing that after your lifetime the Academy will receive an important gift to support research and education in the natural sciences.

The fund also gives you immediate income tax savings and capital gains avoidance, without any fees.

To learn more about the many benefits of participation in the fund, call the Planned Gift Office, at 750-7216, or complete and return the coupon on the back page.

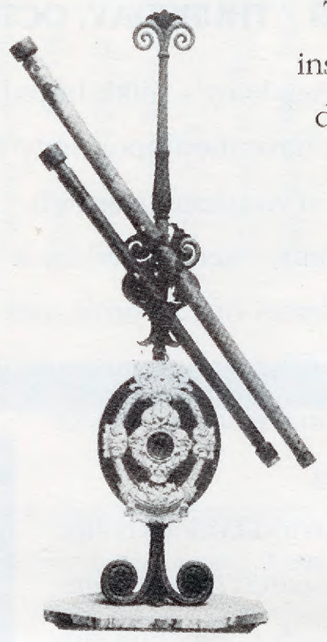
GALILEO

A NEW EXHIBIT – OCTOBER 16 TO DECEMBER 2, EARTH & SPACE HALL

Son of a Florentine merchant and founder of modern physics, Galileo Galilei was one of the first completely modern scientists. He discovered the laws of motion, from which he invented the pendulum, and made magnificent celestial discoveries about the motion of the earth that forever changed our understanding of the universe.

In March 1610, Galileo Galilei published *Sidereus Nuncius* (Starry Messenger), which detailed his observations of the heavens based on the newly invented telescope. This book caused an immediate sensation throughout Europe as it challenged many of the old ideas held by the Church. His observations of the Moon and the satellites of Jupiter (coupled with those Galileo made soon afterward of Venus and Saturn) were the first empirical evidence that the planets rotated around the Sun, and thus that the universe according to Copernicus — rather than Aristotle's classical theory — was most likely correct.

GALILEO 1564-1642

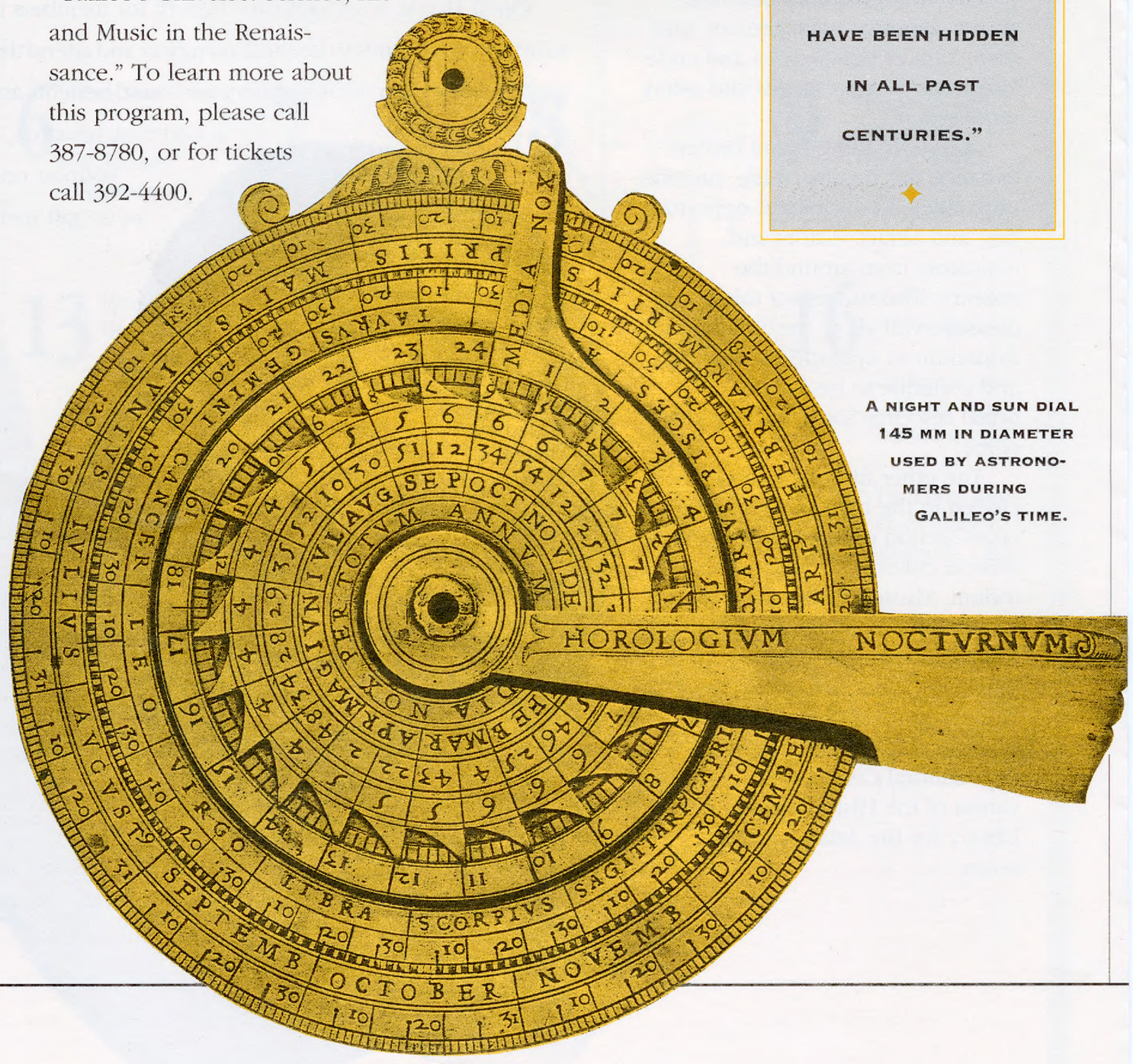


GALILEO'S TWO TELESCOPES

The Academy will be exhibiting 11 Galilean instruments on loan from the Instituto e Museo de Storia della Scienza (Institution and Museum of the History of Science in Florence, Italy). Due to the age and delicacy of many of the instruments, some of the objects are intricately detailed reproductions of the originals which cannot travel from Florence. The Academy is proud to be displaying the following objects: the proportional compass designed by Galileo and made for him by an artisan named Mazzoleni; the astrolabe made by Dante and supposedly used by Galileo; a spiral thermometer, a stemmed thermometer and a frog-shaped thermometer; the Giovilabio, a 17th century instrument based on Galileo's observations of Jupiter; a reproduction of Galileo's original telescope, the Galilean microscope and Galileo's thermoscope; a 19th century working model of Galileo's pendulum clock; and a 17th century telescope.

On October 22 and 23, Humanities West will present a lecture by prominent scholars at the Herbst Theatre entitled, "Galileo's Universe: Science, Art and Music in the Renaissance." To learn more about this program, please call 387-8780, or for tickets call 392-4400.

"ALL WHICH FACTS WERE DISCOVERED AND OBSERVED A FEW DAYS AGO BY THE HELP OF A TELESCOPE DEVISED BY ME, THROUGH GOD'S GRACE FIRST ENLIGHTENING MY MIND . . . TO MAKE ME ALONE THE FIRST OBSERVER OF SUCH WONDERFUL THINGS, WHICH HAVE BEEN HIDDEN IN ALL PAST CENTURIES."



A NIGHT AND SUN DIAL 145 MM IN DIAMETER USED BY ASTRONOMERS DURING GALILEO'S TIME.

LECTURES

THESE LECTURES, PRESENTED IN THE MORRISON AUDITORIUM, ARE GENERALLY SLIDE ILLUSTRATED AND GIVEN IN AN INFORMATIVE, LIVELY MANNER BY EXPERTS IN VARIOUS ASPECTS OF NATURAL HISTORY.

Charlotte Fiorito

The Golden Gate Raptor Observatory, S.F. Zoological Society and the Academy of Sciences Presents:

"THE VERTICAL ENVIRONMENT"

With Morley Nelson,
Monday, October 25, 7:30 pm

Perhaps the most well known falconer in the world, Morley Nelson has been a key player in conservation efforts to save many raptor species from power line electrocution, including endangered bald and golden eagles. His research determined a cause, effect and solution to this deadly problem. Dubbed the "real estate developer for eagles," Nelson used nesting platforms on power poles to entice the birds away from the lines.

His work on raptor conservation has been heralded in *Life Magazine, Audubon, National Geographic, Smithsonian Magazine,* the *Wall Street Journal* and *Discovery Magazine.* Nelson's most recent work, *The Vertical Environment* with Lynn Redgrave as narrator, will air on PBS on September 27.

For the past 30 years Nelson has become nearly legendary by carrying his conservation message to the people directly with films like *First Rulers of the Wind, Nature and Beautiful America,* and films made with Wild Kingdom's Marlin Perkins and Jim Fowler. He also has trained falcons, hawks and eagles for Walt Disney's true life adventure series.

Nelson will bring a golden eagle to the lecture.

$6 Member/$8 Nonmember

"BATTLE FOR THE ELEPHANTS"

With Dr. Iain Douglas-Hamilton,
Tuesday, November 16, 7:30 pm

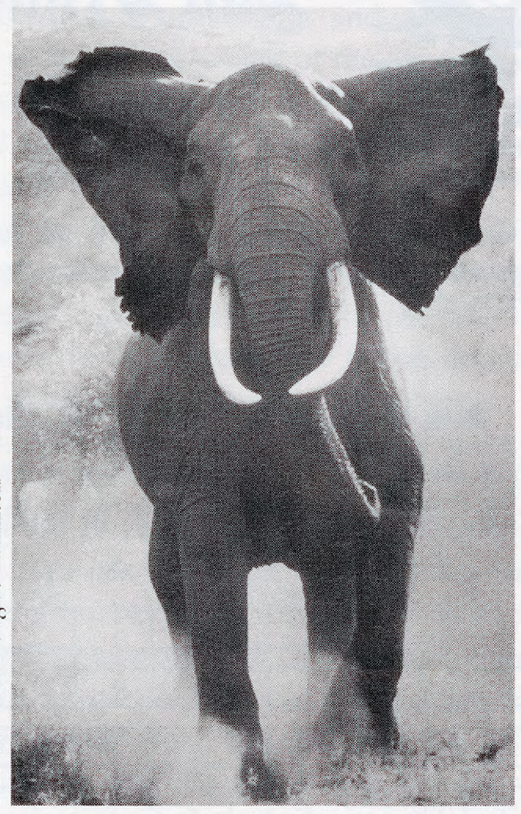
Elephant history is now at a watershed. For the last two decades elephants have been decimated by the ivory trade. Dr. Iain Douglas-Hamilton, with a lifetime of experience studying elephant behavior and interactions with humans, will address the future of elephant populations and success of the ban on commercial trade in elephant ivory.

From the elephant playing fields in Lake Manyara, the plains of East Africa and the Deserts of Namibia, he'll take you on a slide-illustrated tour of the African elephants' modern world, including battles with poachers and ivory traders, and the latest discoveries in behavior. It is a story of paradoxes and controversies, and of men and women engaged in the battle for elephant survival.

Dr. Douglas-Hamilton, a senior associate of the African Wildlife Foundation, and his wife, Oria, are among the best known biographers of Africa's elephants. They wrote the best selling book *Among the Elephants,* in 1975, followed by *Battle for the Elephants,* in 1992.

A book signing will immediately follow the lecture.

$8 Member/$10 Nonmember



Iain and Oria Douglas-Hamilton

"GRIZZLY YEARS– IN SEARCH OF THE AMERICAN WILDERNESS"

With Doug Peacock,
Wednesday, November 17,
6 pm Reception;
7:30 pm Lecture

The magnificent grizzly bear, our continent's most powerful and dangerous carnivore, has been the object of Doug Peacock's fascination since he returned from Vietnam. As a war-weary veteran, he escaped into the vastness of the Rocky Mountain wilderness and found another besieged veteran, the American grizzly.

For over 20 years he has traversed the rugged mountains of Montana and Wyoming alone and unarmed, living off the land for weeks at a time. Peacock will

Doug Peacock

take you into the grizzly's habitat to observe this majestic animal's behavior, from denning, mating and playing, to its social hierarchy and methods of bear communication. As Peacock tracks the bears, his story turns into a thrilling narrative about the mutual break down of suspicion between human and animal in the wild.

Peacock is a noted cinematographer, author and environmental hero. He is "one of the legendary celebrities of anti-development politics," according to Outside Magazine. Ed Abbey based his famous character, George Hayduke, in *The Monkey Wrench Gang,* on his friend Peacock.

A reception will precede the lecture at 6 pm. Reception ticket holders will have reserved seating. A book signing will immediately follow the lecture.

Lecture: $6 Member/ $8 Non-member
Reception/Lecture: $30 Member/ $35 Nonmember

OTHER OCTOBER LECTURES:

"Tales of a Shaman's Apprentice," with Mark Plotkin, Oct. 6

"Journey Through Ethiopia," with Duncan Willetts, Oct. 20

"The Maya of Guatemala," with Dr. Richard Hansen, Oct. 28

(See calendar for time)

Proclamation

Whereas: San Francisco is proud of the many important contributions which the California Academy of Sciences makes to the educational and scientific enlightenment of our community; and

Whereas: San Francisco is honored to call attention to the distinguished history of the Academy, which was founded in 1853 to inform us all about the need to protect and preserve the natural world; and

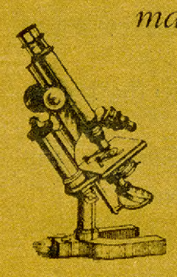
Whereas: the Academy will celebrate its 140th year in 1993, providing continuing opportunities for visitors to discover new scientific information and learn about the unique qualities of one of San Francisco's oldest cultural resources; now

Therefore, Be It Resolved That I, Frank Jordan, Mayor of the City and County of San Francisco, do hereby in honor of this historic anniversary, proclaim the month of October 1 - 31, 1993 as CALIFORNIA ACADEMY OF SCIENCES MONTH IN SAN FRANCISCO

FOR THESE LECTURES PLEASE USE THE COUPON ON THE BACK PAGE TO ORDER YOUR TICKETS. CALL 750-7128 FOR INFORMATION.

KEEP THE MOON RISING

Designate the Academy

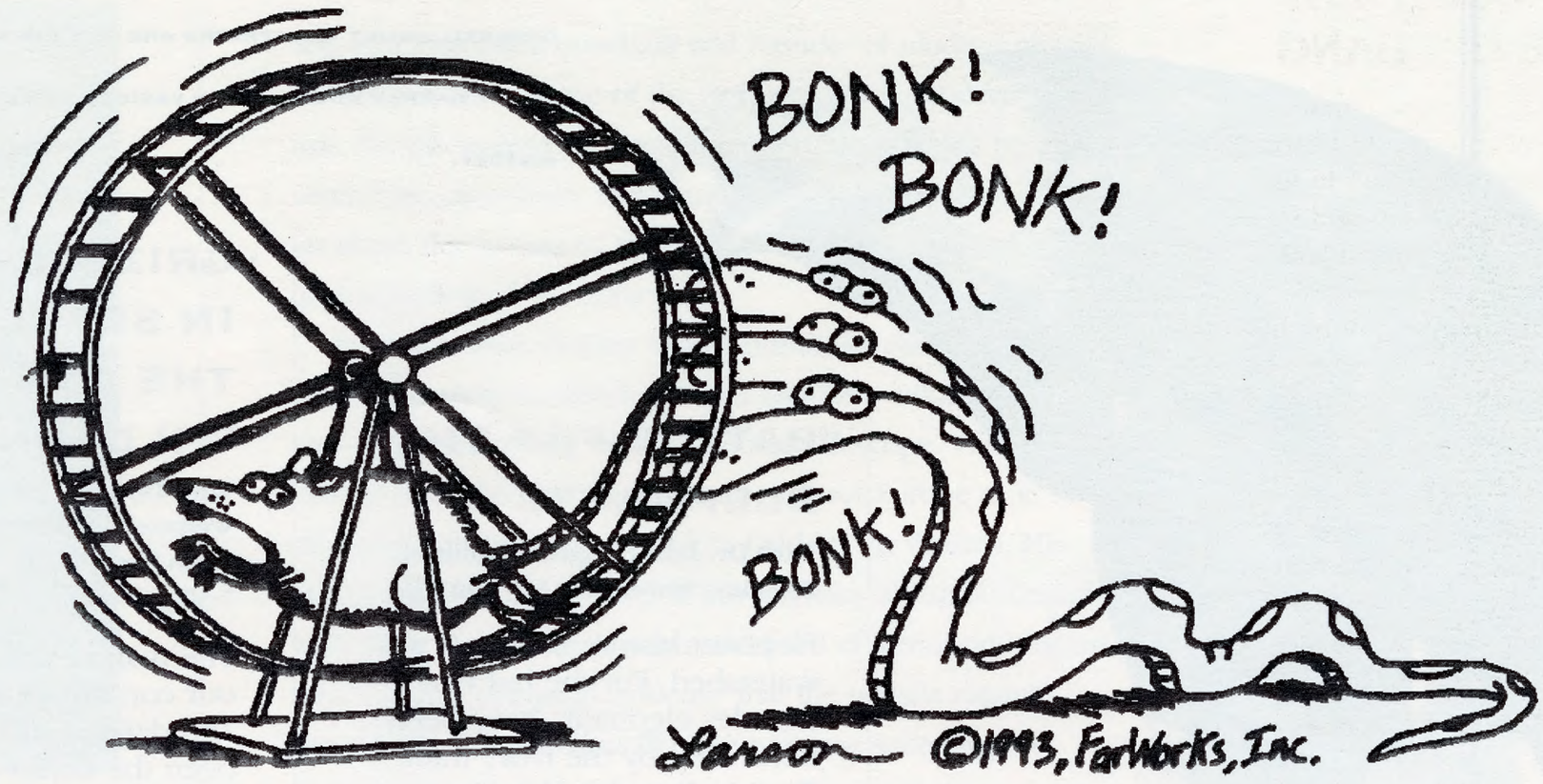
- *$5 a month will buy three cricket meals a day for a frog or chameleon*
- *$10 a month will buy food for the sand* *tiger shark in the Roundabout*
- *$25 a month will keep the moon rising on time in the Morrison Planetarium*
- *$50 a month will enable a young science intern to make presentations to Academy visitors* 

These are a few examples of how your monthly pledge to a workplace campaign program can help support the Academy. You, family members and friends can now donate to the Academy through the current campaigns of the Combined Federal Campaign of Local Independent Charities and United Way.

If your company is part of the United Way program you can *designate* the Academy on your donor card. Government employees participating in the Combined Federal Campaign receive a booklet which lists the Academy among the agencies eligible for contributions.

Please consider making a payroll deduction pledge in the Academy's name. Your monthly gift will make a difference! Or, if you would like to make a direct donation, use the form on the back page.

THE CALIFORNIA ACADEMY OF SCIENCES PRESENTS . . .



RUN TO THE FAR SIDE IX

GET READY, GET SET FOR RUN TO THE FAR SIDE IX, *(5K AND 10K RUN, OR 5K WALK)*

The ninth annual Run to the Far Side takes off in Golden Gate Park on Sunday, November 28th, at 8:30 am. This popular event, a tribute to the comic creations of Gary Larson, is expected to attract more than 15,000 Far Side comic fans. A major fund-raiser for the Academy, proceeds from the event support environmental education and research programs.

Run to the Far Side has grown to be one of the 10 largest footraces in the United States. Last year participants came from 44 states and six foreign countries. Costumes honoring Larson characters are a race tradition with prizes awarded by the San Francisco Chronicle to the best cows, cavemen, gorillas, and slippery squids, to name a few.

All participants receive a Run to the Far Side T-shirt, designed especially for the event by Gary Larson. A prerace warm-up will begin at 7 am in front of the Academy. After the race, participants will be admitted to the Academy for free.

Customized Run to the Far Side prizes will be awarded in the 5K and 10K race for the overall best male and female, first place age division, and wheelchair winners. Participants will have a chance to win randomly awarded prizes, including Southwest Airlines tickets and Run to the Far Side memorabilia.

As a special discount to Academy members, preregistration fees will be $15. For nonmembers, the fees are $18 when postmarked by November 19. Race day registration will be $22 for everyone. For entry information, write to: Run to the Far Side, RhodyCo Productions, 3929 California St., San Francisco, CA 94118, or call the Race Hotline at (415) 398-2187.

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RUN TO THE FAR SIDE IX, 5K AND 10K RUN, OR 5K WALK

Preregister by November 19 for $18 (CAS members $15). Mail checks (payable to CAS), completed entry form and a self-addressed, stamped envelope to: RUN TO THE FAR SIDE, c/o RhodyCo Productions, 3929 California St., San Francisco, CA 94118. Or join us on race day for $22. Sorry no refunds!

SEX M F DATE OF BIRTH MONTH DAY YEAR AGE (ON RACE DAY) WHEELCHAIR FOR OFFICIAL USE ONLY

LAST NAME FIRST

ADDRESS

CITY STATE ZIP

5K 10K CAS MEMBERS # _____ NONMEMBER PHONE ___ - ___ - ____

WAIVER: In consideration of your accepting this entry for RUN TO THE FAR SIDE IX held on November 28, 1993, I intending to be legally bound, do hereby for myself, my heirs, executors, administrators waive and release any and all rights and claims for damages I may accrue against the California Academy of Sciences, the Recreation and Parks Department, City and County of San Francisco, RhodyCo Productions, Total Race Systems, USA Track & Field, their employees and representatives and all sponsors, volunteers for any and all injuries that may be suffered by me at or en route to or from the event. I attest that I am physically fit and sufficiently trained for this competition, my physical condition verified by a licensed M.D. during the last 6 months. I will assume my own medical and emergency expenses in the event of an accident or other incapacity of injury resulting from or occurring from my participation. As part of the waiver I acknowledge that I have read and understood all of the above and, in consideration of this being an amateur event, I grant full permission to any and all organizations which obtain photographs, motion pictures, videotapes, recording or any other record of this event to use them for any purpose whatsoever.

SIGNATURE (Parent / Guardian if under 18) DATE

ADULT EDUCATION

REMNANTS OF THE BIG BANG

Galaxies prefer company. According to recent charting, they group together in massive clumps, walls and sheets, suggesting that our ideas about the Big Bang may need revision. Delve into the history of these galactic bodies, as well as recently reported mapping of the Big Bang's radio echo. Dr. Seth Shostak will explain why these are vital clues to the creation of the cosmos and the identity of 95 percent of the universe that is invisible to our telescopes.

Oct. 18 & 25 (2 Mondays), 7 to 9 pm
$30 Member/$40 Nonmember

HAWAII'S REEFS OF WONDER

Due to Hawaii's relative isolation and slightly cooler waters, these unique islands have become home to hundreds of oceanic species. Evolving here over the millennia and found nowhere else in the world are wonderful urchins, sea stars, cucumbers, tunicates, corals, worms, crabs, snails and fishes. Join Dr. Ron Russo for a slide lecture on the formation of the islands, their fascinating underwater creatures, and the impact of El Niño events, diver tourism and island sinking.

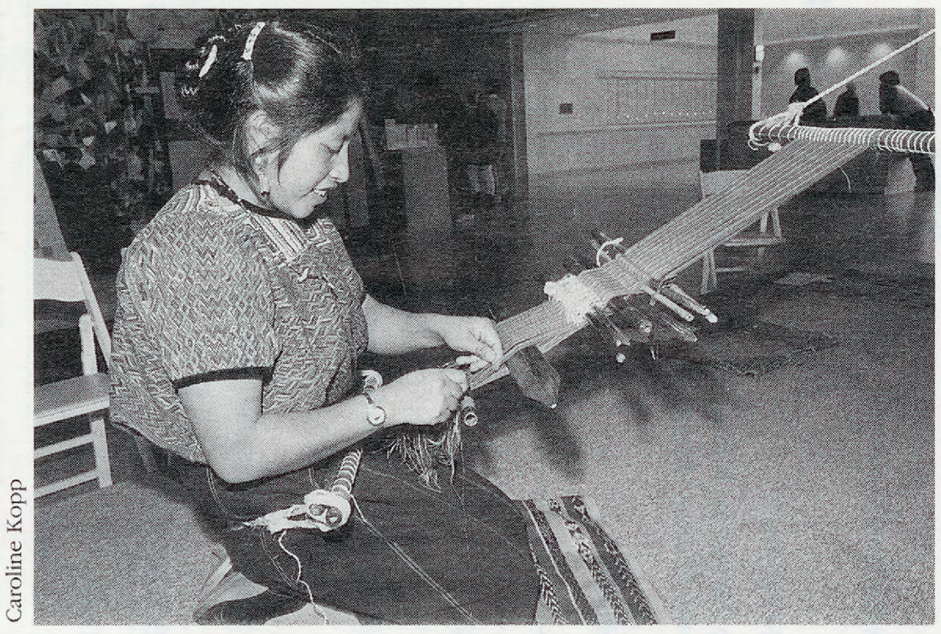
Oct. 7 (Thursday), 7 to 9 pm
$12 Member/$15 Nonmember

THE SAN ANDREAS FAULT– UP CLOSE AND PERSONAL

Source of two magnitude 8 earthquakes, the San Andreas fault, one of the longest and most active faults in the world, offers spectacular geologic features along much of its length. Join Ivan Wong for an introductory one-hour presentation at the Academy focusing on basic facts about earthquakes and faults. Then you'll follow the San Andreas fault from Daly City, where it enters onshore, through the Crystal Springs Reservoir area and down along the San Francisco Peninsula. The final stop will be in Menlo Park to visit the U.S. Geological Survey to learn about ongoing earthquake research.

Oct. 9 (Saturday), 9 am to 3 pm
$35 Member/$45 Nonmember (includes transportation)

Call 750-7100 for more information.



Caroline Kopp

TRADITIONAL ARTS

GUATEMALAN TEXTILES — Santa Perfitt, from Todos Santos de Cuchumatan in Highland Guatemala, displays traditional *huipiles* and other textiles from her village. She'll discuss their manufacture and give a weaving demonstration on the backstrap loom. **Oct. 9**

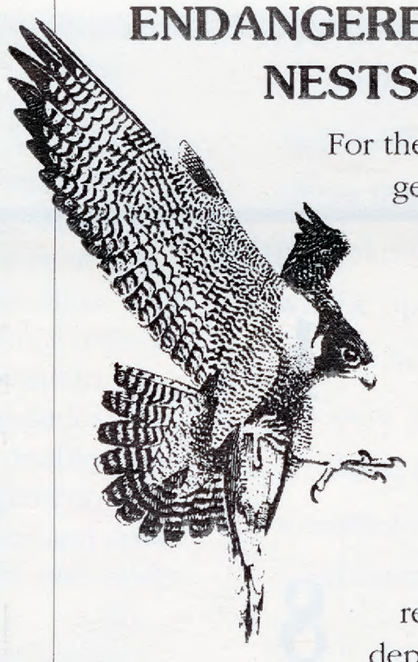
CAJUN MUSIC — With their lively, foot-tapping music, the California Cajun Orchestra recreates the ambience of a Louisiana dance hall on a Saturday night. **Oct. 16**

PLAINS INDIAN QUILLWORK — Jerry Dunbar demonstrates the techniques of Plains Indian quillwork. This decorative embroidery uses dyed porcupine quills sewn onto soft tanned hides and predates beadwork that became popular after the introduction of European glass beads in the nineteenth century. **Oct. 23**

SPANISH INFLUENCES ON MEXICAN MUSIC — Guitarist and vocalist Raul Lara's repertoire illustrates the Spanish influences on Mexico's musical heritage. **Oct. 30**

Explore cultural traditions from around the world with the Academy's Traditional Arts Program. The demonstrations occur on Saturdays at 1 pm in Wattis Hall or the Morrison Auditorium, for the dates listed. Call 750-7164 for more information.

ENDANGERED PEREGRINE FALCON NESTS ON BAY BRIDGE



For the first time since the 1950's, the endangered peregrine falcon has successfully bred in San Francisco County. The falcons chose to nest on one of the Bay Area's most prominent structures – the Oakland/San Francisco Bay Bridge. This success was not without its setbacks, however, as only one chick out of three survived its first flight from the bridge. The chick is now being closely monitored by Douglas A. Bell, a research scientist with the Academy's department of ornithology and mammalogy, and David P. Gregoire, a research associate of the UC Santa Cruz Predatory Bird Research Group (SCPBRG).

With the advent and use of pesticides such as DDT in the 1940's, the peregrine falcon began to decline worldwide. Scientists discovered that the presence of DDT in the falcon's fatty tissue interfered with their calcium metabolism, causing the birds to lay thin-shelled eggs. In California, by the time the use of DDT was banned in 1972, the peregrine falcon population had declined from as estimated 250-350 pairs to just a handful of known pairs, and these were experiencing major reproductive difficulties.

Throughout much of the 15 year history of the peregrine recovery effort, the Bay Area has been host to several falcon release sites. Many have moved into urban areas and taken up residence on human-made counterparts to cliffs – skyscrapers and bridges. They do not actually build a nest, rather, they lay their eggs in a depression made in the soft soil or sandy substrate of a cliff or ledge. As of 1992, there were 113 peregrine pairs in California.

Scientists at the Academy are working together with the SCPBRG to monitor nesting success and population parameters, and CalTrans is cooperating to improve nest ledges on the Bay Bridge so that the peregrine falcon may remain a permanent resident of the Bay Area.

ACADEMY TRAVEL

WATCH THE SUN DISAPPEAR

TOTAL SOLAR ECLIPSE EXPEDITION

Oct. 29-Nov. 5, 1994 with Lonny Baker, Todd Hansen and Dr. Chris McKay

Join a group of eclipse chasers to Iguazu Falls, Brazil, to view one of nature's most awesome spectacles, a total solar eclipse on November 3, 1994. On a farm 7000 miles from home you'll watch the sky as it slowly begins to dim and you feel the air suddenly cool. This is the moment we have waited a year to see — the moment when the sun disappears behind the moon — the moment called totality. For three minutes and 40 seconds the earth and the sky will darken and the Diamond Ring, Bailey's Beads, solar corona, enormous solar prominences, stars and planets will become visible.

The expedition includes three nights in Rio de Janeiro, and two nights and three days at Iguazu Falls, a natural wonder shared by Brazil and Argentina, with 275 cascades plunging down to the river from cataracts 230 feet high.

A post-eclipse extension is offered to Buenos Aires, San Carlos de Bariloche, Chilean Lake crossing through the Andes and Santiago, Chile.

The tour will be led by Lonny Baker, Morrison Planetarium's Education Coordinator, and Todd Hansen, amateur astronomer, who led the Academy's successful trip to Oaxaca, Mexico for the 1991 eclipse. They will be joined by Dr. Chris McKay of NASA's Ames Research Center.

Early reservations are strongly recommended as previous eclipse trips have sold out far in advance. Cost: $2,167 per person sharing accommodations, including airfare (price subject to change)

For a detailed itinerary, call the Academy Travel Office at 750-7348.

MONSTER BASH

Turtles, snakes and creepy creatures will be on hand to greet you **Oct. 31st,** from **12 to 3 pm** for the Academy's Monster Bash. There will be a costume competition, monster mash dance/contest, face painting, mask making, pumpkin decorating, a puppet show, prizes and refreshments.

The bash will kick off with our third annual launching of The Bay Area Book Festival, premiering the first book release of *Fantasies & Monsters.* Meet the junior publishers and get a sneak preview of their international monster art. Popular authors of books on creatures and the magic spells of nature also will be on hand to enchant you.

Eth-Noh-Tec, a multicultural storytelling duo will chill your bones with monster and ghost stories from Asia using a combination of music, movement, and the spoken word. In the courtyard, next to the Academy's 15-foot T. rex, view sun spots with the San Francisco Amateur Astronomer's sun telescopes and create solar mobiles.

OCTOBER

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 **PENGUIN FEEDINGS** are at 11:30 am, and 4 pm every day	2
3 **DOLPHIN FEEDINGS** are at 10:30 am, 12:30, 2:30 and 4:30 pm every day	4 **SCIENCE IN ACTION INTERNS** This month's childrens program: the Mediterranean, Saturdays 12:30 and 3 pm	5 **FISH ROUNDABOUT FEEDINGS** are at 2 pm every day	6 Free Day Lecture, "Tales of a Shaman's Apprentice," 7:30 pm	7 **LASERIUM SHOWS** Thursday– Sunday, evenings, call 750-7138 (no membership discount)	8 **PENGUIN FEEDINGS** are at 11:30 am, and 4 pm every day	9 Traditional Arts, Guatemalan Textiles, 1 pm
10 **PLANETARIUM SKY SHOWS** on weekends at 11 am, and at 12, 1, 2, 3 and 4 pm	11	12	13 Members Open House	14 Members Open House **PLANETARIUM SKY SHOWS** on weekdays at 2 pm	15	16 "Galileo" exhibit opens Traditional Arts, California Cajun Orchestra, 1 pm
17	18	19 Exploring the Universe, "Fingerprinting the Universe: Diamonds in Space," 7:30 pm	20 Lecture, "Journey Through Ethiopia," Reception 6 pm, Lecture 7:30 pm	21	22	23 Traditional Arts, Plains Indian quillwork, 1 pm
24	25 Lecture, "The Vertical Environment," 7:30 pm	26	27	28 Lecture, "The Maya of Guatemala," 7:30 pm	29	30 Traditional Arts, Spanish influences on Mexican music, 1 pm
31 Monster Bash, 12 to 3 pm						

CURRENT EXHIBITS:

Hands On Science, through Jan. 3

Birds of a Feather, through Jan. 3

Jurassic!, thorough February

NOVEMBER DATES TO REMEMBER:

Planetarium, "Fingerprinting the Universe," Nov. 9

Lecture, "Battle for the Elephants," Nov. 16

Lecture, "In Search of the American Wilderness," Nov. 17

Run to the Far Side, Nov. 28

UPCOMING MEMBERS MEETINGS:

Nov. 3, "Blue Whales," with Tom Johnson

Dec. 8, "Animals with Backbones," with Joe Fitting

Jan. 12, "Namibia - A Natural History," with Gary Williams

THE ACADEMY STORE

MEET THE AUTHORS

Dougal Dixon's *Dougal Dixon's Dinosaurs*, Oct. 8, 1 and 3 pm

Madeleine Dunphy's *Here Is the Arctic Winter*, Oct. 13, 1 pm

B. "Moose" Peterson's *California - Vanishing Habitats and Wildlife*, Oct. 22, 1 and 2 pm; Oct. 23, 2 and 3:30 pm

Joanne Ryder's *One Small Fish*, Oct 27, 1 pm

California Academy of Sciences

THE ACADEMY INCLUDES THE NATURAL HISTORY MUSEUM, STEINHART AQUARIUM AND MORRISON PLANETARIUM. WE'RE OPEN EVERY DAY OF THE YEAR FROM 10 AM TO 5 PM.

VISITOR SERVICES

Academy Information: 415-750-7145

Academy Store: 750-7330

Admissions: 750-7159

Aquarium: 750-7247

Biodiversity Resource Center: 750- 7361

Development Office: 750-7216

Education Office: 750-7100

Group Information: 750-7043

Laserium: 750-7138

Lectures: 750-7128

Library: 750-7102

Lost and Found: 750-7150

Membership Office: 750-7111

Planetarium: 750-7141

Planned Giving: 750-7216

Security: 750-7000

Switchboard: 221-5100

Travel: 750-7348

Volunteer Services: 750-7154

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LECTURES

	Qty/Member	Qty/Non-member	Total
The Vertical Environment / Oct. 25	____x $ 6	____x $ 8	=____
Battle for the Elephants / Nov. 16	____x $ 8	____x $ 10	=____
Grizzly Years / Nov. 17			
Lecture Only	____x $ 6	____x $ 8	=____
Reception and Lecture	____x $ 30	____x $ 35	=____
		TOTAL $	____

EXPLORING THE UNIVERSE

	Quantity	Total
Fingerprinting the Universe / Oct. 19	____x $ 2	=____
	TOTAL $	____

PLANNED GIFT PROGRAM

❍ Yes, I am interested in learning more about the Pooled Income Fund. Please send me more information.

GIFT MEMBERSHIP

Gift for _____

Address _____

City, State, Zip _____

Gift from _____

❍ $ 50 Family/Grandparent ❍ $ 40 Individual ❍ $ 35 Dual Senior ❍ $ 30 Student/Senior

DONATIONS

I would like to support the Academy's work with a donation $ _____

TOTAL PAYMENT ENCLOSED $ _____

PAYMENT METHOD

(Check one) ❍ Check ❍ VISA ❍ MasterCard ❍ American Express

Credit card charges gladly accepted over $10.

Card# _____ Exp. Date _____

Signature _____

MAKE CHECK PAYABLE TO: C.A.S and mail with this coupon form to:
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California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118
Daytime Phone _____

INCLUDE A S.A.S.E. FOR EACH SERIES FOR WHICH YOU SUBSCRIBE. NO REFUNDS/EXCHANGES.